Perceived Stress, Wellness, and Mattering: A Profile of First-Year Citadel Cadets

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Abstract:
Cadets (N = 234) at The Citadel (a military college for males and females in the Southeast United States) completed measures of wellness, perceived stress, and mattering during their first semester of training. Overall, wellness scores were negatively skewed. Although there were no differences in perceived stress or mattering between The Citadel cadets and a comparison group of cadets at West Point, The Citadel cadets scored higher than available norm groups on both scales. Implications for wellness programs at military colleges and counseling for beginning cadets are explored. In addition, applicability of the results for nonmilitary college students is discussed.

Article:
College students face a variety of challenges as they transition from high school to higher education (Schwitzer, Griffin, Oris, Ancis, & Thomas, 1999), resulting in a high incidence of psychological distress (Ferry, Tobin, & Beesley, 2004). In particular, first-year college student adjustment has been found to be influenced more by nonacademic variables than by academic ability variables (Brooks & Dubois, 1995; Gerdes & Mallinckrodt, 1994; Johnson, 1997; Petrie & Russell, 1995; Rickinson & Rutherford, 1995; Wilson, Mason, & Ewing, 1997). These nonacademic variables can be categorized into three main areas: social, personal-emotional, and institutional attachment (Martin, Swartz-Kulstad, & Madson, 1999).

In addition to adjustment issues that traditional college students experience, military trainees who are college students have reported unique issues that require adjustment specific to their education, training, and environment (Glaser et al., 1999). For the majority of students entering military colleges, or cadets, military training and the hierarchical structure of the institute requires immediate behavioral and psychological responses (Lerew, Schmidt, &Jackson, 1999). Rigorous physical demands, required conformity, and obedience to authority are variables that are cited as common causes of stress by cadets (Gold & Friedman, 2000). Although these are common concerns in military colleges, differences across colleges have not been examined.

Because military training is known to be stressful (Gold & Friedman, 2000), the prevention of extreme stress responses and possible pathology as well as promoting healthy lifestyles historically has been a focus of military training institutes, including military colleges (Cannon-Bowers & Salas, 1988; Cigrang, Todd, & Carbone, 2000; Lerew et al., 1999). In addition to the use of cognitive-behavioral techniques such as relaxation training and stress inoculation training to decrease stress, several researchers have emphasized the importance of social support to buffer the effects of stress (Ornish, 2000). This type of social support, or "mattering," can be defined as a sense of belonging, a feeling of connectedness, or a feeling that one is important to others (Rosenberg & McCullough, 1981; Taylor, Turner, Noymer, Beckett, & Elliott, 200 1). The importance of mattering in college environments is supported by findings from Martin et al. (1999), who determined that both academic self-confidence and positive attitude toward the individual's university predicted more successful adjustment to college. However, students who reported feeling that they received adequate support from their environment did better in terms of overall adjustment, a finding supported in other studies of college student wellness (Ferry et al., 2004; Osborn, 2005).

Recently, more attention has been given to promoting healthier lifestyles at military institutes and colleges (Parker et al., 2001a, 200 1 b). In their goal to develop an integrative health promotion and wellness model, the U.S. Army War College aims to help promote healthy lifestyles that are essential in mitigating stress. The core components of the model include physical (i.e., body composition, treadmill exercise tests, and blood profile analysis) and mental health measures (i.e., anger-hostility, depression, and anxiety), as well as spiritual assessment. However, as noted by Myers and Bechtel (2004), a number of components of holistic wellness models, such as nutrition, self-responsibility, stress management, and other occupational, social, and emotional factors are not included in this model but are included in several holistic wellness models (Hettler, 1984; Myers, Sweeney & Witmer, 2000).

Myers and Bechtel (2004) used the wheel of wellness, a holistic model based in counseling theory, as the foundation for examining wellness of 179 first-year cadets at West Point. The wheel includes 17 components of wellness identified through multidisciplinary studies as correlates of health, longevity, and quality of life. An examination of these wellness components in relation to measures of perceived stress and mattering resulted in significant negative correlations between perceived stress and work, realistic beliefs, and stress management. Significant positive correlations were found between 17 wellness scales and mattering. Cadets scored higher than available norm groups of undergraduates in general on perceived stress, mattering, and seven wellness scales. The authors also found within-group differences based on both gender and age and suggested using their findings "as a foundation for planning needed and effective wellness and health promotion programs" at West Point (p. 482).

The present study was undertaken to provide additional information for planning health promotion and wellness programs for cadets. A major goal was to compare wellness of West Point cadets identified in the earlier study by Myers and Bechtel (2004) to a sample of first-year undergraduates at another military training institute, The Citadel. The following research questions were addressed: What are the levels of wellness of first-year Citadel cadets? What is the relationship between perceived stress and wellness for these cadets? What is the relationship between mattering and wellness, and between mattering and perceived stress, for these cadets? How does the wellness, perceived stress, and perceptions of mattering of The Citadel cadets compare to levels of these factors in other known and comparable groups (i.e., West Point freshmen and a norm group of college undergraduates)? Are there any differences within the group of The Citadel cadets based on age, gender, or culture?

METHODS

First semester cadets enrolled in a required academic and life skills support course at The Citadel participated voluntarily in this study. The first semester of the freshman year was targeted for the study based on literature that indicates college adjustment may be influenced more by nonacademic factors than academic ones (Brooks & Dubois, 1995: Gerdes & Mallinckrodt, 1994; Johnson, 1997; Petrie & Russell, 1995; Rickinson & Rutherford, 1995; Wilson et al., 1997). More specific to military college adjustment, freshmen cadets are experiencing stressors related to adjusting to rigorous physical demands, required conformity, and obedience to authority (Gold & Friedman, 2000). Hence, the need to study these variables during the semester may provide insight to college officials who are in charge of the curriculum and well being of these cadets.

Class instructors were provided with specific written instructions and asked to participate by administering the questionnaires for the study during designated class times during the last week of October and first week of November in the Fall semester of 2004. The questionnaire packets included three survey instruments, which included demographic items. Seventeen of 24 sections of the course were included. The instructions, which were read aloud by class instructors, included information about the purpose of the study, who was conducting the study, and how the results were to be distributed. Additionally, the cadets were advised that participation was voluntary and that the surveys were to be sealed by each participant upon completion to maintain confidentiality.

All questionnaires were provided in individual envelopes that were sealed when completed; hence, the instructors were not allowed to see each student's response. A total of 316 survey packets were distributed. Among these, 279 students agreed to participate in the study. However, 23 were excluded due to having more than 10% of the items incomplete, and 22 more were excluded as responses to one of the instruments were missing. The resulting total of 234 complete records represented a response rate of 74%.

TABLE 1.

Selected Demographic Descriptors of The Citadel Cadets by Gender

Demographic Characteristic	Males		Females		Total	
	n	%	*n*	%	*n*	%
Gender						
Male	203	100.0	25	100.0	203	86.8
Female					25	10.7
Missing					6	2.5
Total	203	100.0	25	100.0	234	100.0
Ethnicity						
Native American	2	50.0	2	50.0	4	1.7
Asian Pacific Islander	8	57.0	6	43.0	14	6.0
African American	17	81.0	4	19.0	21	9.1
Caucasian	166	94.0	10	6.0	176	75.2
Hispanic	9	75.0	3	25.0	12	5.1
Missing					7	3.1
Totals	201		25		226	100.1
Age						
18	91	38.9	10	4.3	101	43.2
19	77	32.9	7	3.0	84	35.9
20	13	5.6	3	1.3	16	6.8
21	8	3.4	0	0.0	8	3.4
23	1	0.4	0	0.0	1	0.4
Missing					24	10.3
Totals						100.0
Marital Status						
Partnered-Married	15	6.4	1	0.4	16	6.8
Single	185	79.1	21	9.0	206	88.0
Separated	0	0.0	3	1.3	3	1.3
Widowed	3	1.3	0	0.0	3	1.3
Missing					6	2.1
Totals	203		25		234	99.5

Participants

As shown in Table 1, the sample of 234 cadets included 203 males (86.8%) and 25 females (10.7%), with 6 persons not reporting gender. This gender breakdown is representative of the ratio of male to female cadets in the first-year cadet cohort and throughout the corps of cadets at The Citadel. They ranged in age from 18 to 23, with a mean age of 18.7 (*SD* = .83), median of 19, and mode of 18. Based on the gender make-up of all first-year cadets at The Citadel (male = 580, female = 41), females were well represented in this sample. Three fourths (*n* = 176) of the participants were Caucasian, 21 (9. 1 %) were African American, 14 (6%) were Asian American, 12 (5. 1 %) were Hispanic, 4 (1.7%) were Native American, and 7 (3.1 %) did not report their ethnic background. The ethnic breakout of this group is a representative sample of the entire first-year freshmen cadet class as well as the entire corps of cadets at The Citadel.

In comparison, the sample obtained from the earlier study of West Point Cadets included 150 males (83.8%) and 29 females (16.2%), aged 17 to 23, with a mean age of 19.4 (*SD* = 6.4; mode = 19). Just over one third (*n* = 66, 36.9%) were Caucasian, 52 (29%) were African American, 24 (13.4%) were Hispanic, 14 (7.8%) were Asian American, and 16 reported "other" as their ethnic background.

Instrumentation

Participants completed demographic items and three instruments: The Five Factor Wellness Inventory (Myers & Sweeney, 2005), the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), and the General Mattering Scale (Marcus, 1991).

The Five Factor Wellness Inventory (5F-Wel). The 5F-Wel (Myers & Sweeney, 2005) is a 73-item instrument developed through structural equation modeling using a database developed using the Wellness Evaluation of Lifestyle (WEL Inventory; Myers, Witmer, & Sweeney, 1996). Although the 103-item WEL was used in the earlier study with West Point cadets, the 5F-Wel was used in this study due to its stronger psychometric properties. The instrument was designed to assess each of the factors in the indivisible self-wellness model (see Figure 1). Each item is a statement (e.g., "I am an active person.") that requires a response on a 4-point Likert-type scale ranging from 4, *strongly agree*, to 1, *strongly disagree*. Scale scores are sums of the responses to each item in the scale. A linear transformation places all scales on a common metric, with scores ranging from 25 to 100; higher scores indicate higher wellness. The instrument provides scores for Total Wellness, the sum of all 73 items, 5 second-order factors, and 17 third-order factors which group within the second order factors (see Figure 1). In this study, the higher order Total Wellness factor and the 17 third-order factors were examined. Myers and Sweeney (2005) reported an alpha coefficient of .94 for Total Wellness and alphas ranging from .79 for the Work scale to .92 for Love. A lower alpha of .58 was reported for the Realistic Beliefs scale, which the authors explained as resulting from the nature of this particular scale. It includes a sample of irrational beliefs that are conceptually unrelated; hence the alpha tends to be the lowest of all the 5F-wel scales and mean scores on the scale are also the lowest of any scale across populations.

Perceived Stress Scale (PSS). The PSS (Cohen et al., 1983) was designed to measure the degree to which situations in one's life are appraised as stressful. Cohen et al. provided three versions of the PSS including 14, 10, or 4 items. The abbreviated 10-item inventory (PSS 10) was used in this study as the authors reported the highest alpha coefficient for this scale (.85). The PSS 10 items (e.g., "In the last month, how often did you feel unable to control important things?") are questions that are answered using a 5-point scale, from 1 (*never*) to 5 (*very often*). Scores range from 10 to 50. The PSS 10 was normed on two samples of college students totaling 446 individuals.

General Mattering Scale (GMS). Rosenberg and McCullough (1981) defined mattering as the degree to which individuals perceive themselves to be important to others. Their research indicated that an individual's sense of mattering is not tied to others displaying only a positive opinion of the individual, but to the belief that others care enough about the individual to have an opinion of him or her at all. The GMS (Marcus, 1991) was developed to assess individuals' feelings that they mattered to other people. The instrument consists of five items (e.g., "How much do you feel others would miss you if you went away?") rated on a 4-point Likert-type

scale, from 1 (*not at all*) to 4 (*very much*). Scores can range from 5 to 20. A higher score indicates a stronger sense of significance to others. Connolly and Myers (20 03) reported an alpha of .85 for a group of 82 adults, of whom 59% were female. The alpha for the current sample was .83.

Data Analyses

Descriptive statistics were computed for all scales of all instruments to address the first two research questions. Pearson product-moment correlation coefficients were computed to examine relationships among the variables. A series of MANOVAs were conducted to determine possible differences between The Citadel and West Point cadets and the WEL undergraduate norm group on all scales. Though the 17 factors in the 5F-Wel correspond to the subscales in the WEL, the items in the two instruments are not identical and the WEL scales, unlike those in the 5F-Wel, were not factor derived. In addition, the WEL uses a 5-point Likert-type response scale and the 5F-Wel uses a 4-response choice format. Thus, direct comparisons between The Citadel and earlier West Point cadets were not possible without manipulating the databases. To make scores comparable, The Citadel participants' scores on the 5F-Wel and the scores of West Point cadets were transformed to *z* scores, then transformed to *t* scores which were used in the analyses.

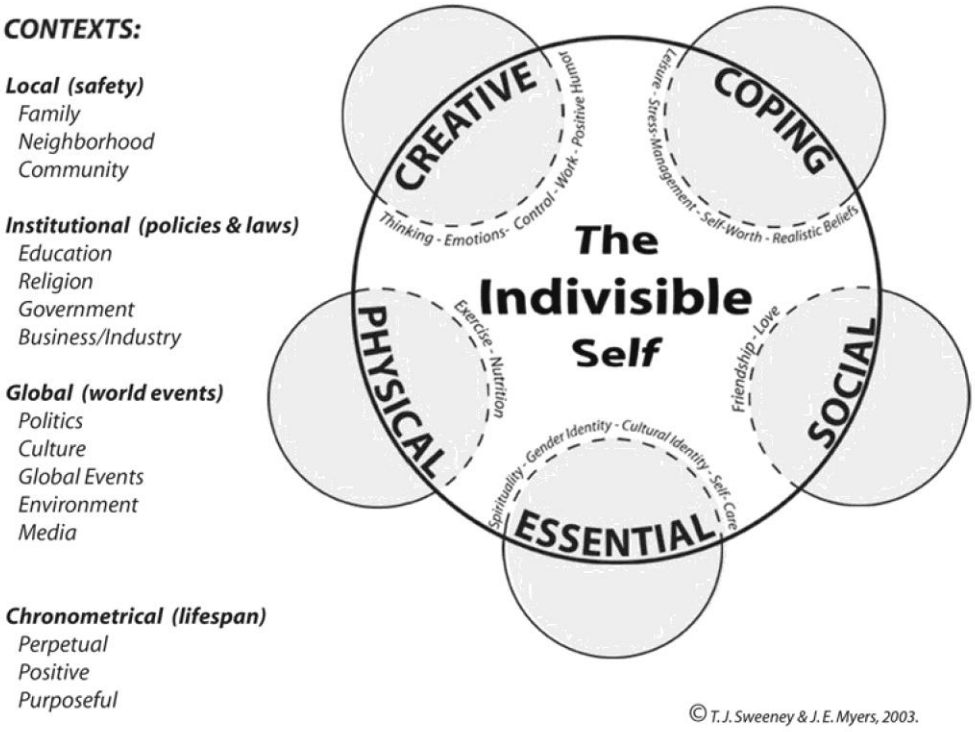

FIGURE 1. The Indivisible Self: An-Evidence Based Model of Wellness

Finally, a series of one-way ANOVAs were computed to test for possible within-group differences based on gender and age. Due to the small sample sizes it was not possible to compute comparisons between Caucasians and ethnic minorities. Using a Bonferonni correction to avoid spurious positives, an alpha of .002 was established to determine statistical significance.

RESULTS

In Table 2, descriptive statistics for participants' scores for all instruments are provided, including the *t*-score range, minimum and maximum scores, means, and standard deviations. An examination of the *t*-score distribution to determine overall levels of wellness among The Citadel cadets (research question 1) reveals a wide range of scores for all scales. The lowest reported *t* scores were observed for the Essential Self (t = 8.69) and Gender Identity (t = 8.11), both representing scores more than four standard deviations below the mean.

The highest *t* scores were observed for factors of the Coping Self (*t* = 78.29) followed by the Creative Self (*t* = 75.91) and Physical Self (*t* = 72.69); these scores were between 2 and 3 standard deviations above the mean. Overall, the *t*-score distribution for the cadets was negatively skewed.

Pearson product-moment correlations were computed to examine the second and third research questions and are shown in Table 3. There was a significant inverse correlation between Nutrition and Perceived Stress (*r* = –.229) and a significant positive correlation between Exercise and Perceived Stress (*r* = .141). Sixteen of 25 correlations between the 5F-Wel scales and Mattering were statistically significant and positive. The highest correlations resulted between Mattering and the second-order Social Self factor (*r* = .381), as well as both third-order factors of Friendship (*r* = .403) and Love (*r* = .290), followed by Total Wellness (*r* = .394). Correlations between Mattering and Perceived Stress were not significant.

The fourth research question examined levels of wellness, perceived stress, and mattering of first-year Citadel cadets in comparison to first-year West Point cadets and the 5F-Wel norm group. As shown in Table 2, The Citadel cadets scored higher than West Point cadets on the Creative Self factor of Thinking ($F = 83.352$, $p < .002$) and lower than these cadets on Self-Worth ($F = 82.039$, $p < .002$). The Citadel cadets also scored lower than the 5F-Wel norm group of undergraduates on Self-Worth ($F = 47.617$, $p < .002$).

TABLE 2.

Descriptive Statistics, MANOVAs, and Two-Tailed *t* tests for The Citadel (*n* = 234) and West Point (*n* = 179) on the Five Factor Wellness Inventory, Perceived Stress Scale, and General Mattering Scale

	The Citadel Cadets (*n* = 234)					West Point Cadets (*n* = 179)		MANOVA Results: Both	
5F-Wel Scales	**Range**	**Min.**	**Max.**	**Mean**	***SD***	**Mean**	***SD***	***F*(*df* = 1,945)**	***p***
Creative	59.20	16.72	75.91	50.00	9.99	50.00	10.02	< .001	.995
Thinking	50.69	19.19	69.88	49.50	9.99	41.94	10.81	83.352	< .002*
Emotions	49.68	19.46	69.14	50.00	9.99	50.04	10.02	.002	.962
Control	50.63	16.15	66.78	50.00	9.99	49.97	10.02	.001	.972
Work	53.96	20.47	74.42	50.00	9.99	49.97	10.02	.001	.974
Positive Humor	43.10	19.50	62.61	49.97	9.90	50.02	10.03	.001	.977
Coping	64.90	13.40	78.29	50.00	9.99	49.94	9.96	< .001	.994
Leisure	54.11	13.37	67.48	50.00	9.99	49.94	10.00	.004	.947
Stress Mgt.	54.69	17.02	71.71	50.00	9.99	50.00	10.03	< .001	.995
Self-Worth	52.72	9.73	62.45	50.00	9.99	57.43	9.30	82.039	< .002*
Realistic Beliefs	59.76	20.73	80.49	50.00	9.99	49.91	9.49	.004	.947
Social	41.60	18.61	60.21	50.00	9.99	49.94	10.00	< .001	.994
Friendship	45.11	15.42	60.53	49.97	9.99	49.94	9.98	.005	.942
Love	44.01	14.01	58.03	50.00	9.99	49.97	10.02	.002	.968
Essential	60.84	8.69	69.53	50.00	9.99	50.05	10.01	< .001	.995
Spirituality	41.21	20.97	62.18	50.00	9.99	80.00	10.03	< .001	.999
Gender Identity	55.56	8.11	63.67	50.00	9.99	50.03	10.02	< .001	.976
Cultural Identity	47.35	14.86	62.21	50.00	9.99	50.00	10.01	< .001	.995
Self-Care	42.78	19.53	62.32	50.00	9.99	50.05	10.01	.003	.953
Physical	59.88	12.81	72.69	50.00	9.99	50.00	10.03	< .001	.989
Nutrition	49.31	23.31	72.62	50.00	9.99	50.01	10.03	< .001	.996
Exercise	48.12	11.58	59.70	50.00	10.00	47.08	10.49	10.980	< .001
Total Wellness	56.77	14.84	71.60	50.00	9.99	50.00	10.02	< .001	.999
								***t*(*df* = 410)**	***P***
Perceived Stress	40.00	10.00	50.00	32.53	4.77	32.61	3.61	–0.194	.846
Total Mattering	20.00	5.00	25.00	15.83	3.15	16.63	2.79	–2.730	.045

* $p < .002$.

TABLE 3.

Pearson Product-Moment Between Wellness Factors, Perceived Stress, and Mattering for The Citadel Cadets

	Perceived Stress		Mattering	
5F-Wel Scales	**Corr.**	**Sig.**	**Corr.**	**Sig.**
Creative	.009	.891	.339	< .002*
Thinking	.056	.390	.180	.006
Emotions	.074	.254	.215	.001
Control	–.005	.936	.250	< .002*
Work	–.185	.004	.250	< .002*
Positive Humor	.108	.098	.313	< .001
Coping	–.120	.065	.350	< .002*
Leisure	–.058	.375	.241	< .002*
Stress Mgt.	–.128	.049	.236	.001
Self-Worth	–.019	.768	.310	< .002*
Realistic Beliefs	–.096	.140	.108	.099*
Social	.064	.327	..381	< .002*
Friendship	.017	.797	.403	< .002*
Love	.093	.156	.290	< .002*
Essential	.021	.754	.286	< .002*
Spirituality	.054	.413	.250	< .002*
Gender Identity	–.073	.262	.074	.256*
Cultural Identity	–.028	.673	.226	< .002*
Self-Care	.058	.379	.171	.036
Physical	–.095	.147	.103	.114
Nutrition	–.229	< .002*	.032	.626
Exercise	.141	< .002*	.135	.234
Total Wellness	–.031	.636	.394	< .002*
Total Self-Direction	–.044	.499	.346	< .002*
Perceived Stress			.007	.921
Total Mattering	.110	.093		

* $p < .002$.

The Citadel cadets scored higher than available norm groups on both Perceived Stress ($t = 18.426$, $p < .002$) and Total Mattering ($t = 18.426$, $p < .002$). There were no differences in mean mattering scores between the two sets of cadets; however, as was true in Myers and Bechtel's (2004) study, the current set of cadets scored significantly higher than the under-graduate norm group. The effect size for this difference was quite large ($d = 1.03$).

A series of one-way ANOVAs based on gender resulted in three significant differences among the participants. Female cadets scored significantly higher than males on Social Self ($F = 4.66$, $p = .032$), Friendship ($F = 3.77$,

p = .053) and Cultural Identity (F = 4.89, p = .028). Within-group differences due to ethnicity could not be calculated due to low cell sizes. No significant age differences were observed.

DISCUSSION

A total of 234 freshmen Citadel cadets completed measures of holistic wellness, perceived stress, and mattering at the midpoint of their first semester at The Citadel. A wide range of scores on wellness components was observed and overall the distribution of scores was negatively skewed. Nutrition was correlated inversely and negatively, and Exercise correlated positively with Perceived Stress. Sixteen of 25 correlations between mattering and wellness factors were positive and significant. The cadets scored lower than both West Point cadets and a norm group of under-graduates on Self-Worth and Self-Direction. They scored higher than West Point cadets on Thinking. Although there were no differences in Perceived Stress or Mattering between the two sets of cadets, The Citadel cadets scored higher than available norm groups on both scales. Female Citadel cadets scored higher than males on factors of Social Self and Cultural Identity.

The wide range of wellness scores among cadets is noteworthy for several reasons. Within the military training environment, high-level wellness is a desirable goal. Given the highly selective nature of the cadet population, a positive skew of wellness scores might be expected, with cadets scoring higher than nonmilitary norm groups in multiple areas. Although some of these expectations were supported in the Myers and Bechtel (2004) study of West Point cadets, the current findings were quite different. Despite negative skewness in the wellness scores of the West Point cadets, those cadets scored higher than the norm group of undergraduates attending nonmilitary institutions on multiple wellness scales, including Self-Worth. In contrast, The Citadel cadets scored lower than the norm group and West Point cadets on this scale. According to Myers and Sweeney (2005), self-worth includes the ability to accept oneself and his or her imperfections. Though it is not possible to determine the reasons for this finding, it merits further exploration as well as the development of interventions to further assess and enhance feelings of positive self-esteem. It is possible that factors in the first-year cadet experience function to depress feelings of worth. Part of the first-year experience training is an expectation for cadets to excel in both academics and military tasks. Although differences in levels of achievement are expected, imperfection is not acceptable. One of the major goals at military colleges is to train leaders, and achievement is linked with leadership training. Could it be possible that achievement is being too narrowly defined for The Citadel cadets? If that is the case, it is important that achievement be re-examined and individual factors be inspected as to how they contribute to leadership.

Whether and how feelings of self-worth change during the military training experience have not been studied, and the current findings suggest a need for longitudinal studies as well as cohort studies of upper class cadets across institutions. Data from such studies would be useful in understanding the cadets' educational experiences and provide a foundation for interventions to enhance perceptions of self-worth throughout the military college years.

Another aspect of studying self-worth is the comparison between military college and nonmilitary college undergraduates. The cadets at both military colleges (i.e., The Citadel and West Point) scored higher on the wellness scale of Self-Worth in comparison to the undergraduates at nonmilitary colleges. Military college cadets may be at an advantage based on the similarity of experiences at these colleges, but at the same time the cadets may find it difficult to accept their own differences and still feel confident in themselves.

Concerns about fitting in or being part of the group, coupled with the fact that only half of entering students have a clear sense of their future (Martin et al., 1999), may affect the feelings of self-worth that nonmilitary college undergraduates are reporting. If this is true, then nonmilitary colleges and universities can add or modify existing curricular and extra-curricular activities that are offered to entering undergraduates to directly address feelings of self-worth. This may include requiring academic and life skills support courses if they are only electives for the students. These courses can include some career and life planning activities that can help students focus on their futures in and out of school. Additionally, college student affairs personnel may consider collaborating with college counselors on outreach programming that focuses on psycho-educational and

psychosocial aspects of college life. Working with college and university professors, residential hall activity directors, and commuting student departments are avenues to address the academic, social, and personal needs of undergraduate students. Addressing areas that may affect feelings of self can also alleviate possible feelings of anxiety that students are experiencing.

The finding of higher scores on Thinking at The Citadel as compared to West Point was interesting and unexpected. Myers and Sweeney (2005) defined this factor as "being mentally active, open-minded, creative, having a sense of curiosity, a need to know and to learn. . ." (see Table 4). The primary difference in the demographics of the study participants at the two colleges was greater ethnic diversity and a greater proportion of females at West Point. Unfortunately, the cell sizes for these demo-graphic differences were too small to permit valid comparisons. Follow-up studies in which Thinking wellness and the various components of this factor are examined in more detail may help shed light on the meaning of the current findings.

In regard to the PSS, there was no significant difference between The Citadel cadets' stress scores and those of the West Point cadets from the previous study. However, The Citadel cadets scored significantly higher on the PSS than the norm WEL group of undergraduates, which is an indicator that The Citadel cadets perceive their lives to be far more stressful than do nonmilitary undergraduates. In addition, there was no difference in the area of stress management between the two groups. It seems that The Citadel cadets experience greater stress but have no more coping resources for this stress than the typical undergraduate in a nonmilitary college. Given these findings, greater attention to stress levels and techniques for stress management for cadets are imperative. Although stress management is discussed in The Citadel 101 classes, it is discussed briefly during one class period during the latter half of the semester. More focused attention on cohesion and stress management earlier in the semester may yield higher ratings of wellness and lower stress scores.

Although nonmilitary undergraduates reported lower stress levels than the cadets at The Citadel, they perceived their stress management wellness similarly. These results indicate that there may some environmental influences between the military and non-military colleges in regard to effect on perceived stress levels. However, stress was still reported by the nonmilitary undergraduates and deserves some attention. According to Myers and Sweeney (2005), stress management is the ability of the person to engage in on-going self-monitoring and assessment of the person's coping resources and ability to respond to stress in the person's life. Student affairs personnel at nonmilitary colleges and universities may want to provide more opportunities to help undergraduates learn how to monitor their own stress and provide easily accessed resources to ask for and receive help with their stress. Many colleges and universities provide counseling center screenings, but more outreach activities may be warranted. Assessing the stress of the undergraduates is a recommended first step to planning education and services for the students. Student affairs may initiate an anonymous online survey for freshmen to complete in order to assess their stress and adjustment levels. This type of assessment will not only allow college personnel to learn more about their students and plan services, but it will be a first step in informing students that they matter to the college.

Similar to West Point cadets, The Citadel cadets scored significantly higher than the 5F-Wel norm group on the measure of Total Mattering. No differences in scores on the Friendship and Love wellness scales were observed between these groups, and these scales do correlate highly with mattering. Hence, factors in addition to friendship and love relationships apparently are contributing to the observed differences. This may be due to factors in the institutional climate as compared to nonmilitary colleges. It could be that the military environment and the high selection criteria for attendance help the cadets feel connected with others and feel that they are important to others. This connection, or camaraderie, constitutes a strength that can be used in the development of needed stress management programs.

TABLE 4.

Definitions of Wellness Factors

5F-Wel Factors	Brief Definition (adapted from Myers & Sweeney, 2005)
Wellness	The sum of all items on the 5F-Wel; a measure of general well being.
Creative Self	The combination of attributes that each of us forms to make a unique place among others in our social interactions and to positively interpret our world
Thinking	Being mentally active, open-minded, creative, having a sense of curiosity, a need to know and to learn; the ability to think divergently and convergently.
Emotions	Being aware of one's feelings and able to express feelings appropriately.
Control	Beliefs about your competence, confidence, and mastery.
Work	Being satisfied with and feeling appreciated in one's work; able to handle work-related stress.
Positive Humor	Being able to laugh at one's own mistakes and the unexpected things that happen in life and to use humor to accomplish even serious tasks.
Coping Self	The combination of elements that regulate our responses to life events and provide a means for transcending their negative affects.
Leisure	Activities done in one's free time and through which flow (being completely involved and focused on an activity that it feels like time stands still) is experienced.
Stress Management	On-going self-monitoring and assessment of one's coping resources and ability to respond to stress in life.
Self-Worth	Accepting who and what one is and accepting imperfections.
Realistic Beliefs	Accurate perception of reality and avoidance of needs for perfection.
Social Self	Social support through connections with others in our friendships and intimate relationships, including family ties.
Friendship	Social relationships that involve a connection with others, but which do not have a marital, sexual, or familial commitment.
Love	The ability to be intimate, trusting, and self-disclosing with another person and to experience healthy family or family-like relationships.
Essential Self	Our essential meaning-making processes in relation to life, self, and others.
Spirituality	Personal beliefs and behaviors that are practiced as part of the recognition that we are more than the material aspects of mind and body.
Gender Identity	Satisfaction with one's gender and feeling supported in one's gender.
Cultural Identity	Satisfaction with one's cultural identity and feeling supported in one's cultural identity.
Self-Care	Taking responsibility for one's wellness through self-care and safety habits that are preventive in nature.
Physical Self	The biological and physiological processes that comprise the physical aspects of our development and functioning.
Exercise	Engaging in sufficient physical activity to keep in good physical condition; maintaining flexibility and exercising regularly.
Nutrition	Eating a nutritionally balanced diet and maintaining a healthy weight

The differences between military and nonmilitary undergraduates may be related to the previously discussed issue of the diversity of experiences at the college and/or feelings of self-worth. In regard to experiences, the first-year cadets at The Citadel are receiving specialized attention because of the nature of the institution as well as the smaller number of freshmen at the school. Instead of being one freshman of approximately 600, nonmilitary undergraduates are typically one of several thousand. The challenge for college student personnel is how to make students feel like they matter not only at the college but in this lifetime. It appears that it does begin with increasing their feelings of self-worth by employing many of the intervention steps discussed earlier. However, it may go beyond that by teaching students to help each other feel like they matter. This may be

addressed more in the curriculum by college instructors in the methods they employ in the classroom to teach concepts and skills. College student personnel may help in providing training opportunities for college and university instructors to learn how to use more teaching and learning techniques in the classroom that encourage students to help each other and affirm each other's learning ability. As colleges and universities recognize the valuable ideas of their teachers, teachers in turn can take steps to recognize the important and creative ideas of their students. The recognition that their ideas matter helps them increase their self-worth and feelings of mattering.

Finally, within-group differences among The Citadel cadets are worthy of further consideration. When examining differences between males and females, female cadets scored significantly higher than male cadets on Social Self, Friendship, and Cultural Identity. These findings may be explained by research that indicates that "women grow and/or develop in, through and toward relationship" (Jordan, 1995, p. 52). Through experiencing life as arising from a context of relationships, women are provided with a sense of connection to others (Miller, 1988). Therefore, women discover a sense of value and effectiveness in themselves. Discovering this sense of value and effectiveness may also solidify concepts of cultural identity the cadets have about themselves. The Citadel may want to examine methods to increase and encourage mentoring relationships at the freshman level. Increasing this feeling of a sense of connection with others has been found to be one of the factors of women's psychological well-being (Jordan, 1995) and leads to decreased levels of stress (Gibson & Myers, 2002).

The small sample size of females as well as ethnic minorities limits the generalizability of the current findings. In addition, first-year cadets experience high personal expectations for success and high external expectations as well; thus responding in a socially desirable manner to any of the instruments administered could result in artificially inflated scores, particularly on measures of wellness and mattering. Taking these limitations into consideration requires caution in interpreting the findings; however, differences found between cadets at The Citadel and West Point and between both sets of cadets and under-graduates in general underscores the need for further studies of military trainees across institutions. One factor that was not considered in the current study was the geographic region from which cadets came to their military training. West Point is located in the North-eastern United States and The Citadel is in the South. Traditions of both cultures may influence the military training experience, and the cultural background of the cadets is a possible factor influencing the results.

Finally, using *t* scores may have changed the original score distributions in ways that affect the statistical analyses conducted in this study. Although necessary in the present study for reasons explained earlier, by transforming scores to a distribution where all means are 50, it may be that differences among scales were more difficult to detect. Alternately, where differences are found, it may be that these are due to inherently stronger relationships among the variables studied. Future studies using measures with identical scales and scoring are needed to further illuminate these possibilities.

CONCLUSION

This study of wellness in military training programs reveals differences across cadets in military institutions and between students in military institutions and nonmilitary universities. Even considering possible response biases, findings of low self-worth among cadets at The Citadel are noteworthy, as is a pre-dominant negative skew of wellness scores. Intervention programs that build on cadets' strengths in areas such as Thinking on the wellness scale and mattering are needed to enhance well being in this important area. Due to the methods used in this study, no definitive conclusions about differences in the area of Thinking can be made. However, this question should continue to be examined in future research.

Additional research is needed with more advanced cohorts of trainees as well as longitudinal studies to better understand the effects of military training on cadet wellness and how best to intervene to promote wellness in spite of the high stress inherent in military training. Student affairs personnel are encouraged to promote curriculum and intervention techniques that result in positive changes in stress, wellness, and mattering at these institutions.

Finally, much work and research needs to be considered for nonmilitary undergraduates based on these results. Lower scores of self-worth and mattering are indications that college student personnel may need to assess and plan interventions that address possible stressors and adjustment difficulties that nonmilitary undergraduates may be experiencing. Student affairs professionals may need to do more research on interventions that are effective in increasing undergraduates' perceptions of self-worth. Additionally, the concept of mattering requires further research at nonmilitary colleges and universities. This information, combined with the information learned at military colleges, may provide college student personnel the necessary tools to promote healthier self-concepts and less stressful experiences for all higher education students.

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